

AMENDMENTS TO THE CLAIMS

1.(currently amended): A mobile communications service providing system in which location registration request information is transmitted from a mobile node to a home agent via a foreign agent and a server system, and information in reply to the location registration request information is returned from the home agent to the mobile node via the server system and the foreign agent, so that a location of the mobile node is registered to the home agent and the foreign agent, and a mobile communications service is provided based on the registration, wherein:

~~the home agent and the foreign agent comprise a controlling unit determining a transfer destination of a packet;~~

the server system comprising ~~comprises~~

an extracting unit extracting a first service profile corresponding to the mobile node from a database for managing ~~[[a]]~~ the first service profile which includes subscriber information of each user ~~for providing a service requested by the mobile node,~~

a service managing unit editing the first service profile extracted by said extracting unit into a second service profile having a format which includes control information applied to a packet that the mobile node communicates using a communication path established after completing of the location registration, ~~format that is available to said controlling unit,~~ and

a distributing unit distributing the second service profile ~~edited by said service managing unit~~ to the home agent and the foreign agent~~[[, and]]~~;

the home agent and the foreign agent comprising

a controlling unit determining a transfer destination of a packet according to the distributed information of the second service profile, and

the home agent and the foreign agent provide a service by using said controlling unit according to the second service profile distributed from the server system.

2.(currently amended): The system according to claim 1, wherein
the server system does not distribute a second service profile to the home agent and the foreign agent, if the mobile node does not request a value-added service, and
the home agent and the foreign agent provide a fundamental service according to information that the home agent and the foreign agent themselves generate.

3.(original): The system according to claim 1, wherein:
an address range available for a predetermined service is specified beforehand;
a service profile including information representing the address range which is specified beforehand is set in the home agent and the foreign agent as a condition for extracting a corresponding packet from among received packets; and
the server system assigns an address within the address range to the mobile node that requests the predetermined service.

4.(currently amended): The system according to claim 1, wherein:
the server system includes ~~comprises~~ a home server device which has a right to access the database in order to extract the first service profile for the mobile node, and a foreign server device which does not have such an access right; and
the home server device distributes the second service profile to the home agent and the foreign server device, and the foreign server device forwards the second service profile

to the foreign agent.

5.(currently amended): The system according to claim 1, wherein:

the server system includes ~~comprises~~ a home server device which has a right to access the database in order to extract the first service profile for the mobile node, and a foreign server device which does not have such an access right; and

the home server device distributes the second service profile to the foreign server device, and the foreign server device forwards the second service profile to the home agent and the foreign agent.

6.(currently amended): The system according to claim 1, wherein:

the server system includes ~~comprises~~ a home server device which has a right to access the database in order to extract the first service profile for the mobile node, and a foreign server device which does not have such an access right;

the mobile node notifies the home agent of location registration request information via a second foreign agent when moving from a communication area of a first foreign agent to a communication area of the second foreign agent;

the home agent updates information for routing a packet so that a packet addressed to the mobile node is transferred to the second foreign agent; and

the foreign server device distributes the second service profile to the second foreign agent.

7.(currently amended): The system according to claim 1, wherein:

the server system includes ~~comprises~~ a home server device which has a right to access the database in order to extract the first service profile for the mobile node, and first and second foreign server devices which do not have such an access right;

the mobile node notifies the home agent of location registration request information via a second foreign agent, the second foreign server device, and the home server device when moving from a communication area of a first foreign agent managed by the first foreign server device to a communication area of the second foreign agent managed by the second foreign server device;

the home agent updates information for routing a packet so that a packet addressed to the mobile node is transferred to the second foreign agent; and

the home server device distributes the second service profile to the second foreign server device, which then forwards the second service profile to the second foreign agent.

8.(currently amended): The system according to claim 1, wherein:

the server system includes ~~comprises~~ a home server device which has a right to access the database in order to extract a first service profile for the mobile node, and first and second foreign server devices which do not have such an access right;

the mobile node notifies the home agent of location registration request information via a second foreign agent, the second foreign server device, the home server device, and the first foreign server device when moving from a communication area of a first foreign agent managed by the first foreign server device to a communication area of the second foreign agent managed by the second foreign server device;

the home agent updates information for routing a packet so that a packet

addressed to the mobile node is transferred to the second foreign agent; and

the home server device distributes the second service profile to the second foreign server device, which then forwards the second service profile to the second foreign agent.

9.(original): The system according to claim 1, wherein:

upon receipt of the packet addressed to the mobile node from a correspondent node, the home agent distributes to the correspondent node a service profile for extracting a packet in which the mobile node is set as a destination; and

the correspondent node generates information for transmitting to the foreign agent a packet which is extracted according to the distributed service profile.

10.(original): The system according to claim 1, wherein

when providing a service for transferring to an arbitrary mobile node among a plurality of mobile nodes a packet with a virtual address assigned to the plurality of mobile nodes as a destination:

an address proxy server receiving the packet with the virtual address is arranged;
and

the server system distributes to said address proxy server a service profile for extracting the packet with the virtual address is assigned and transferring the extracted packet to the particular mobile node among the plurality of mobile nodes, and also distributes to a foreign agent a service profile for transferring to the particular mobile node a packet addressed to the foreign agent which accommodates the particular mobile node.

11.(currently amended): A mobile communications service providing method with which location registration request information is transmitted from a mobile node to a home agent via a foreign agent and a server system, and information in reply to the location registration request information is returned from the home agent to the mobile node via the server system and the foreign agent, so that a location of the mobile node is registered to the home agent and the foreign agent, and a mobile communications service is provided based on the registration, ~~wherein:~~

~~the home agent and the foreign agent comprise a controlling unit determining a transfer destination of a packet,~~ the method comprising:

extracting, by the server system, a first service profile corresponding to the mobile node from a database for managing ~~[[a]]~~ the first service profile which includes subscriber information of each user ~~for providing a service requested by the mobile node;~~

editing, by the server system, the extracted first service profile into a second service profile having a format which includes control information applied to a packet that the mobile node communicates using a communication path established after completing of the location registration; ~~format that is available to the controlling unit; and~~

distributing the ~~edited~~ second service profile from the server system to the home agent and the foreign agent; ~~[[,]]~~ and

controlling, by the home agent and the foreign agent, a transfer destination of a packet according to the distributed information of the second service profile and thereby providing the home agent and the foreign agent provide a service by using the controlling unit according to the second service profile distributed from the server system.

12.(currently amended): A mobile communications service providing method with which location registration request information is transmitted from a mobile node to a home agent via a foreign agent and a server system, and information in reply to the location registration request information is returned from the home agent to the mobile node via the server system and the foreign agent, so that a location of the mobile node is registered to the home agent and the foreign agent, and a mobile communications service is provided based on the registration, the method comprising:

extracting, by the server system, a first service profile corresponding to the mobile node from a database for managing ~~[[a]]~~ the first service profile which includes subscriber information of each user ~~for providing a service requested by the mobile node;~~

editing, by the server system, the extracted first service profile into a second service profile having a format that is not dependent on a service type and which includes control information applied to a packet that the mobile node communicates using a communication path established after completing of the location registration; ~~and~~

distributing the ~~edited~~ second service profile from the server system to the home agent and the foreign agent; ~~[[,]]~~ and

controlling, by the home agent and the foreign agent, a transfer destination of a packet according to the distributed information of the second service profile and thereby providing the home agent and the foreign agent provide a service according to the second service profile distributed from the server system.

13.(currently amended): A mobile communications service providing method used in a system which ~~comprises~~ includes a database for managing a service profile which includes

subscriber information of each user for providing a service requested by a mobile node, a plurality of agents which can respectively accommodate ~~[[the]]~~ a mobile node, and a server which extracts a first service profile for the mobile node and distributes the extracted service profile to the agents which accommodate the mobile node, and wherein the plurality of agents respectively comprise a controlling unit, ~~determining a transfer destination of a packet;~~ the method comprising:

the server ~~edits the~~ editing the first service profile extracted from the database into a second service profile having a format which includes control information applied to a packet that the mobile node communicates using a communication path established after completing of the location registration that is available to the controlling unit arranged in the agents, and distributes the ~~edited~~ second service profile to the agents which accommodate the mobile node; and

controlling a transfer destination of a packet according to the distributed information of the second service profile and thereby providing, by the agents which accommodate the mobile node, ~~provide~~ a service by using the controlling unit according to the second service profile ~~edited by the server~~.

14.(currently amended): A server system used in a mobile communications service providing system in which location registration request information is transmitted from a mobile node to a home agent via a foreign agent and a server system, and information in reply to the location registration request information is returned from the home agent to the mobile node via the sever system and the foreign agent, so that a location of the mobile node is registered to the home agent and the foreign agent, and a mobile communications service is provided based on the

registration, said server system comprising:

an extracting unit extracting a first service profile for the mobile node from a database for managing ~~[[a]]~~ the first service profile which includes subscriber information of each user ~~for providing a service requested by a mobile node;~~

a service managing unit editing the first service profile extracted by said extracting unit into a second service profile having a format which includes control information applied to a packet that the mobile node communicates using a communication path established after completing of the location registration that is available to a controlling unit for determining a transfer destination of a packet by the home agent and the foreign agent; and

a distributing unit distributing the ~~edited~~ second service profile to the home agent and the foreign agent so that the home agent and the foreign agent provide a service by ~~using the controlling unit~~ a transfer destination of a packet according to the distributed service profile ~~edited by said service managing unit.~~

15.(currently amended): An agent device as a home agent or a foreign agent for use in a mobile communications service providing system in which location registration request information is transmitted from a mobile node to the home agent via the foreign agent and a server system, and information in reply to the location registration request information is returned from the home agent to the mobile node via the server system and the foreign agent, so that a location of the mobile node is registered to the home agent and the foreign agent, and a mobile communications service is provided based on the registration, said agent comprising:

a service-independent unit determining a processing method for a received packet according to header information of the received packet;

an individual service controlling unit using said service-independent unit according to a service profile edited into a format which includes control information applied to a packet that the mobile node communicates using a communication path established after completing of the location registration ~~that is available to said service-independent unit by the server system;~~ and

a packet controlling unit processing a packet according to a processing result of use of said service-independent unit,

said agent thereby determining a transfer destination of the packet according to the service profile and controlling the transfer of the packet.